

REMARKS

By previous amendment, claims 1, 3–6, 8, 13–19, 21–46 were amended and claims 2, 7, and 9–12 were cancelled. By the present amendment, claims 1 and 20 have been amended. Claim 1 has been amended to more particularly point out and distinctly claim the claimed subject matter. Claim 20 was amended to correct a typographical error.

Summary

Embodiments discussed in the specification relate to a user interface and related telephony program architecture for telephony devices. While embodiments are well suited for telephones with screen displays (e.g., screen phones), they may also apply to other telephony devices as well such as modems, answering machines and personal digital assistants.

One embodiment involves a visual user interface for a telephony device. The visual user interface includes a display screen for displaying a variety of display elements for displaying information, receiving user input, or both. The visual interface may include various combinations of the following display elements: an application program selection area, a call slip area, a branding pane, a date/time pane for displaying date or time, a message pane, and a task pane for enabling the user to initiate a task in the telephony device.

Another embodiment relates to the programming modules that control the display of the user interface for a screen phone. These modules include a shell program

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that controls the display of a user interface on a display screen of the phone, and pane programs that each control the display of a display element called a “pane” in the user interface. Default pane programs control the display of information and/or user interface controls in their respective panes. One or more of these panes may be associated with a parent application program that communicates state changes to a pane program, which in turn, updates the display to reflect these state changes.

One method involves developing a user interface for a screen phone. The software platform for the user interface of the screen phone is distributed to implementers of the screen phone, e.g., equipment manufactures, telephone companies, etc. This platform includes program modules that provide some default user interface elements and programming interfaces. The implementer may customize the user interface by modifying a default user interface element or by creating custom program modules. The custom program modules may implement programming interfaces defined in the software platform, and may interact with default program modules through their programming interfaces.

In one implementation, an implementer receives a software platform, including a shell program and default pane programs. The shell program is responsible for displaying the user interface on the display screen of the phone. Each of the default pane programs display default panes in the user interface. The user may customize the user interface by selecting the default panes and creating custom panes.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 3–6, 8, and 13–46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bayless et al., U.S. Patent No. 6,192,118 B1 (hereinafter “Bayless”) in

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view of De Armas et al., U.S. Patent No. 6,611,878 B2 (hereinafter “De Armas”) and in further view of Koppolu et al., U.S. Patent No. 6,268,924 B1 (hereinafter “Koppolu”). By law, in order to establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In addition, “all words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Further, if prior art, in any material respect teaches away from the claimed invention, the art cannot be used to support an obviousness rejection. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed Cir. 1997).

A portion of claim 1, as amended, generally recites: wherein the application programming interface exposed by the shell program comprises one or more methods for customizing the customizable area; and wherein at least one of the one or more methods for customizing the customizable area is for adding one or more custom panes to the visual user interface for the telephony device, the one or more panes associated with a parent application separate from the shell program, the parent application operable to communicate with the shell program via the application programming interface. Applicants' submit that this feature of the claimed invention is not taught or suggested by the cited references.

In contrast, Bayless does not deal with an application programming interface exposed by the shell program that comprises one or more methods for customizing a customizable area. Bayless teaches “[c]omputer telephone system 10 may include a graphical user interface (GUI) to provide an interface between a user and an application 20. In this embodiment a graphical user interface can be created using a GUI object builder. The GUI object builder may have a design mode and a run time mode which allows a designer to visually build an application by specifying the windows,

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window contents, and the behavior of all components of the system.” Bayless, col. 12, Ins 2–9. Additionally, Bayless teaches, “[i]n the design mode, the output of the GUI object builder may be external files that contain the layout and behavior of each designer–created object. These definition files may be input directly in the run time mode of the GUI object builder.” Bayless, col. 12, ln 66 – col. 13, ln 2. In other words, Bayless teaches allowing a user to switch between previously created GUI components. The GUI components are created in the design mode and function in the run time mode. Creating GUI components in the design mode and allowing the created GUI components to function in the run time mode *is not* an application programming interface exposed by the shell program that comprises one or more methods for customizing a customizable area. Indeed, if anything, having a design mode and a run time mode and describing that components are created in the design mode and function in the run time mode *teaches directly away* from a shell program exposing an application programming interface that comprises one or more methods for customizing a customizable area.

Furthermore, the Office action states, “this is exactly what Bayless is doing with the shell program, namely exposing the API (application programming interface) to customize the interface. Applicants strongly disagree. A closer reading of Bayless in its entirety results in an understanding that Bayless does not deal with APIs regarding the customization of portions of the interface. In fact, there are only a few references to APIs in Bayless at all. Some API references include “the system may be implementation–independent as the architecture employs API's to access implementation–dependent hardware and software” and “[t]he use of APIs and especially the mapping program of the present invention isolates the various components of the system architecture from the machine dependent variables of systems providing services to those components” and “[o]ther database software may also be used by interfacing appropriate APIs.” Bayless, col. 11, Ins 46–53 and Ins 66–67. These API references describe the

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functionality and handling of telecommunications with a telephone system (i.e., the TAPIs) and do not describe APIs with respect to modifying the graphical user interface (GUI).

De Armas is cited as teaching “adding customized panes and components associated with a parent application separate from a shell program which exposes an application programming interface that customizes the interface ... for customizing an area with a flexible variety of component sources.” Office action, pg. 3, sec. 4. The Office action further states, “[t]he updating of the panes is one way in which the parent is associated.” Office action, pg. 7, sec. 20. However, this teaching, even if the reference supports the assertion, does not overcome the deficiency of Bayless that an application programming interface exposed by the shell program that comprises one or more methods for customizing a customizable area. The absence of this feature in the cited reference prevents the systems of Bayless and De Armas, even in combination, of providing a dynamic and programmatic customizable graphical user interface (GUI).

In summary, neither Bayless nor De Armas, alone or in any permissible combination, teach, disclose, or remotely hint at the limitations of applicants’ claim 1. At least for these reasons, claim 1 and the claims that depend thereon are patentable over the cited art.

Moreover, the Office action does not provide proper motivation for combining Hind with the subject matter discussed in Leal and with the subject matter discussed in Chen. To support a § 103(a) rejection, there must be some teaching, suggestion, or motivation other than applicants’ teachings for modifying a cited reference or combining references to achieve the claimed invention. The Office action does not indicate any suggestion or motivation in the prior art of record, either explicit or otherwise, for modifying the references or combining the references in a manner that would achieve the claimed invention, or point out any teaching as to how such a

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modification or combination might be accomplished, or what might be accomplished thereby. Instead the Office action merely recites, “[i]t would’ve been obvious to a person with ordinary skill and the art to have (sic) this in Bayless et al, because it would provide customization for a display area with a flexible variety of components sources.” Office action, pg. 3, sec. 4. Such broad, conclusory statements do not come close to adequately addressing the issue of motivation to combine, are not evidence of obviousness, and therefore are improper as a matter of law. *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). At least for this additional reason, claim 1 and the claims that depend thereon are patentable over the cited references.

Similarly, independent claims 8, 13, 19, 21, 32, 41, and 45–46 are patentable over the cited art. Claim 8, as amended, recites, in part:

wherein the software for customizing the customizable visual user interface comprises at least one application programming interface comprising one or more methods for adding one or more custom panes corresponding to a parent application to the customizable visual user interface, the at least one application programming interface exposed by a shell program ...

wherein customization of the customizable visual user interface is performed by the second software provider using the application programming interface.

Claim 13, as amended, recites, in part:

creating a custom user interface program module, wherein the custom user interface program module uses the programmatic programming interface operable to provide functionality for customizing the user interface and displays a custom user interface element in the user interface, the custom user interface element associated

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with a parent application not included in the received software platform or the received default user interface program modules.

Claim 19, as amended, recites, in part:

a shell program for controlling display of a user interface on a display screen of the screen phone, wherein the shell program exposes a programmatic programming interface operable to provide functionality for customizing the user interface ...

wherein the programmatic programming interface provides one or more methods for creating one or more custom panes for display in the user interface, the custom panes associated with one or more parent applications outside the shell program.

Claim 21, as amended, recites, in part:

providing, on one or more tangible computer-readable media, software comprising computer-executable instructions for implementing default elements of the customizable visual user interface and customizing the customizable visual user interface to a custom software implementer;

wherein the software for implementing default elements of the customizable visual user interface and customizing the customizable visual user interface comprises one or more application programming interfaces comprising one or more methods for customizing the visual user interface, wherein at least one of the one or more application programming interfaces is exposed by a shell program and comprises a method for adding a custom pane corresponding to a parent application to the customizable visual user interface.

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Claim 32, as amended, recites, in part:

at run-time of the user interface, accepting an indication that a new user interface element is to be added to the user interface ... responsive to the accepting, adding the new user interface element to the user interface ... the accepting facilitates customization of the user interface ... at run-time of the user interface ... the new user interface element is associated with a parent application separate from a shell program implementing default elements of the user interface.

Claim 41, as amended, recites, in part:

an application programming interface operable to enable customization of the graphical user interface during run-time of the graphical user interface;

wherein the customization comprises adding one or more new user interface elements associated with a parent application separate from the software platform.

Claim 45, as amended, recites, in part:

providing a pane identifier in a function call, wherein the identifier is associated with a new pane to be added to the user interface ... the function call calls a function in a programming interface exposed by the shell program, and wherein the programming interface facilitates customization of the user interface.

Claim 46, as amended, recites, in part:

wherein the software for implementing a customizable visual user interface comprises at least one application programming interface comprising one or more methods for customizing the customizable area, the at least one application

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programming interface provided by a shell program implementing default elements of the visual user interface ...

As discussed above, the cited references do not disclose, teach, or suggest an application programming interface exposed by the shell program that comprises one or more methods for customizing a customizable area. Thus, independent claims 8, 13, 19, 21, 32, 41, and 45–46 and the claims that depend thereon are patentable over the cited references.

Regarding the rejection of dependent claims 3–6 and 26–27, the Office action rejected claims 3–6 and 26–27 under 35 U.S.C. § 103(a) as being unpatentable over Bayless in view of De Armas. Applicants respectfully submit that the rejection of claims 3–6 and 26–27 is improper. Claims 3–6 and 26–27 depend from independent claim 1. For at least the reasons stated above with reference to claim 1, the cited combination does not disclose, teach, or even suggest the limitations of claim 1. Therefore, the cited references cannot be properly used to reject claims 3–6 and 26–27 under 35 U.S.C. § 103(a).

Regarding the rejection of dependent claims 14–18 and 28–31, the Office action rejected claims 14–18 and 28–31 under 35 U.S.C. § 103(a) as being unpatentable over Bayless in view of De Armas. Applicants respectfully submit that the rejection of claims 14–18 and 28–31 is improper. Claims 14–18 and 28–31 depend from independent claim 13. For at least the reasons stated above with reference to claim 13, the cited combination does not disclose, teach, or even suggest the limitations of claim 13. Therefore, the cited references cannot be properly used to reject claims 14–18 and 28–31 under 35 U.S.C. § 103(a).

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Regarding the rejection of dependent claim 20, the Office action rejected claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Bayless in view of De Armas. Applicants respectfully submit that the rejection of claim 20 is improper. Claim 20 depends from independent claim 19. For at least the reasons stated above with reference to claim 19, the cited combination does not disclose, teach, or even suggest the limitations of claim 19. Therefore, the cited references cannot be properly used to reject claim 20 under 35 U.S.C. § 103(a).

Regarding the rejection of dependent claims 22–25, the Office action rejected claims 22–25 under 35 U.S.C. § 103(a) as being unpatentable over Bayless in view of De Armas. Applicants respectfully submit that the rejection of claims 22–25 is improper. Claims 22–25 depend from independent claim 21. For at least the reasons stated above with reference to claim 21, the cited combination does not disclose, teach, or even suggest the limitations of claim 21. Therefore, the cited references cannot be properly used to reject claims 22–25 under 35 U.S.C. § 103(a).

Regarding the rejection of dependent claims 33–40, the Office action rejected claims 33–40 under 35 U.S.C. § 103(a) as being unpatentable over Bayless in view of De Armas. Applicants respectfully submit that the rejection of claims 33–40 is improper. Claims 33–40 depend from independent claim 32. For at least the reasons stated above with reference to claim 32, the cited combination does not disclose, teach, or even suggest the limitations of claim 32. Therefore, the cited references cannot be properly used to reject claims 33–40 under 35 U.S.C. § 103(a).

Regarding the rejection of dependent claims 42–44, the Office action rejected claims 42–44 under 35 U.S.C. § 103(a) as being unpatentable over Bayless in view of De Armas. Applicants respectfully submit that the rejection of claims 42–44 is improper. Claims 42–44 depend from independent claim 41. For at least the reasons stated above

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with reference to claim 41, the cited combination does not disclose, teach, or even suggest the limitations of claim 41. Therefore, the cited references cannot be properly used to reject claims 42–44 under 35 U.S.C. § 103(a).

Additionally, the Office action rejected claims 1, 3–6, 8, and 13–46 under 35 U.S.C. § 103(a) as being unpatentable over Bayless in view of De Armas and in further view of Koppolu. However, no arguments were made in the Office action that incorporated Koppolu. Applicants disagree that claim 1, 3–6, 8, and 13–46 are unpatentable over Bayless in view of De Armas and in further view of Koppolu. As set forth in the attached STATEMENT TO ESTABLISH COMMON OWNERSHIP, applicants submit that the current application and the patent of Koppolu were, at the time the invention of the present application was made, owned by, or subject to an obligation of assignment to the same entity. Pursuant to 35 U.S.C. § 103(c), applicants request that the Koppolu reference be withdrawn with respect to the rejection of claims 1, 3–6, 8, and 13–46.

For at least these reasons, applicants submit that all the claims are patentable over the prior art of record. Reconsideration and withdrawal of the rejections in the Office action is respectfully requested and early allowance of this application is earnestly solicited.

CONCLUSION

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested. Based on the foregoing, Applicants respectfully requests that the pending claims be allowed, and that a timely Notice of Allowance be issued in this

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case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,
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STATEMENT TO ESTABLISH COMMON OWNERSHIP

(Regarding U.S. Patent No. 6,268,924)

Applicants, through the attorney of record, state that the present application and each of the above-identified references were, at the time the invention was made, owned by, or subject to an obligation of assignment to the same entity.

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